Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1653hxp

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4	Apr 09	ZDB will be removed from STN
NEWS 5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 9	Jun 03	New e-mail delivery for search results now available
NEWS 10	Jun 10	MEDLINE Reload
NEWS 11	Jun 10	PCTFULL has been reloaded
NEWS 12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS 13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS 14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS 15	Jul 30	NETFIRST to be removed from STN
NEWS 16	Aug 08	CANCERLIT reload
NEWS 17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18	Aug 08	NTIS has been reloaded and enhanced
NEWS 19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 23	Sep 03	JAPIO has been reloaded and enhanced
NEWS 24	Sep 16	Experimental properties added to the REGISTRY file
NEWS 25	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 26	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 27	Oct 21	EVENTLINE has been reloaded
NEWS 28	Oct 24	BEILSTEIN adds new search fields
NEWS 29	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS 31	Nov 18	DKILIT has been renamed APOLLIT
NEWS 32	Nov 25	More calculated properties added to REGISTRY
NEWS 33	Dec 02	TIBKAT will be removed from STN
NEWS 34	Dec 04	CSA files on STN
NEWS 35	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36	Dec 17	TOXCENTER enhanced with additional content
NEWS 37	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 38	Dec 30	ISMEC no longer available
NEWS 39	Jan 13	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 40	Jan 21	NUTRACEUT offering one free connect hour in February 2003
NEWS 41	Jan 21	PHARMAML offering one free connect hour in February 2003
NEWS 42	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 43	Feb 13	CANCERLIT is no longer being updated
NEWS 44	Feb 24	METADEX enhancements
NEWS 45	Feb 24	PCTGEN now available on STN

NEWS 46 Feb 24 TEMA now available on STN
NEWS 47 Feb 26 NTIS now allows simultaneous left and right truncation
NEWS 48 Feb 26 PCTFULL now contains images
NEWS 49 Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results

NEWS EXPRESS January 6 CURRENT WINDOWS VERSION IS V6.01a,
CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 15:07:22 ON 14 MAR 2003

=> file medline, wpids, embase, dgene, fsta, jicst, biois
'BIOIS' IS NOT A VALID FILE NAME
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files that are available. If you have requested multiple files, you can specify a corrected file name or you can enter "IGNORE" to continue accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):biosis
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'MEDLINE' ENTERED AT 15:07:48 ON 14 MAR 2003

FILE 'WPIDS' ENTERED AT 15:07:48 ON 14 MAR 2003
COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'EMBASE' ENTERED AT 15:07:48 ON 14 MAR 2003
COPYRIGHT (C) 2003 Elsevier Science B.V. All rights reserved.

FILE 'DGENE' ENTERED AT 15:07:48 ON 14 MAR 2003
COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'FSTA' ENTERED AT 15:07:48 ON 14 MAR 2003
COPYRIGHT (C) 2003 International Food Information Service

FILE 'JICST-EPLUS' ENTERED AT 15:07:48 ON 14 MAR 2003
COPYRIGHT (C) 2003 Japan Science and Technology Corporation (JST)

FILE 'BIOSIS' ENTERED AT 15:07:48 ON 14 MAR 2003
COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

=> s integrative transformants
L1 41 INTEGRATIVE TRANSFORMANTS

```
=> s reinterated ribosomal DNA
L2            0 REINTERATED RIBOSOMAL DNA

=> s ribosomal DNA
L3        16927 RIBOSOMAL DNA

=> s l3 and reiterated
L4           50 L3 AND REITERATED

=> s l1 and l4
L5            0 L1 AND L4

=> s l4 and yeast
L6           13 L4 AND YEAST

=> d l6 ti abs ibib tot

L6   ANSWER 1 OF 13     MEDLINE
TI   Replicon size of yeast ribosomal DNA.
AB   The ribosomal RNAs of the yeast Saccharomyces cerevisiae are
     transcribed from a 9K bp stretch of DNA which is reiterated
     about 120-fold in a continuous array, about 360 microns long, on
     chromosome XII. Although ARS activity has been detected in the repeat
     unit, the size and disposition of replicons along this array of identical
     genes has not hitherto been determined. We have used immobilised rRNA as a
     probe to examine the size of radioactively labelled rDNA replicons
     resolved on alkaline sucrose gradients. The replicons were found to be
     uniformly sized, about 5 repeat units in length, and groups of 4 adjacent
     replicons may be activated simultaneously. These observations suggest that
     replicon initiation events are not determined solely by the recognition of
     specific DNA sequences that function as origins of replication.
ACCESSION NUMBER:    85035837     MEDLINE
DOCUMENT NUMBER:     85035837   PubMed ID: 6387390
TITLE:               Replicon size of yeast ribosomal
                     DNA.
AUTHOR:              Walmsley R M; Johnston L H; Williamson D H; Oliver S G
SOURCE:              MOLECULAR AND GENERAL GENETICS, (1984) 195 (1-2) 260-6.
                     Journal code: 0125036. ISSN: 0026-8925.
PUB. COUNTRY:        GERMANY, WEST: Germany, Federal Republic of
DOCUMENT TYPE:       Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
FILE SEGMENT:        Priority Journals
ENTRY MONTH:         198411
ENTRY DATE:          Entered STN: 19900320
                     Last Updated on STN: 19900320
                     Entered Medline: 19841126

L6   ANSWER 2 OF 13     MEDLINE
TI   Simple Mendelian inheritance of the reiterated ribosomal
     DNA of yeast.
AB   A diploid strain of yeast (Saccharomyces cerevisiae) was found
     to be heterozygous for two forms of the highly repetitious
     ribosomal DNA. These forms could be distinguished by the
     pattern of fragments produced after digestion with the site-specific
     restriction endonuclease EcoRI. The mode of inheritance of
     ribosomal DNA was determined by tetrad analysis. Of 14
     tetrads analyzed, 12 clearly showed the ribosomal DNA
     forms segregating as a single Mendelian unit. The simplest interpretation
     of this result is that all of the approximately 100 copies of the
     ribosomal DNA genes of the yeast cell are
     located on one chromosome and that meiotic recombination within these
     genes is suppressed. Two of the 14 tetrads showed the segregation patterns
     expected as the result of mitotic recombination within the
     ribosomal DNA.
```

ACCESSION NUMBER: 78053057 MEDLINE
DOCUMENT NUMBER: 78053057 PubMed ID: 337310
TITLE: Simple Mendelian inheritance of the **reiterated ribosomal DNA** of **yeast**.
AUTHOR: Petes T D; Botstein D
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1977 Nov) 74 (11) 5091-5. Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197801
ENTRY DATE: Entered STN: 19900314
Last Updated on STN: 19900314
Entered Medline: 19780127

L6 ANSWER 3 OF 13 WPIDS (C) 2003 THOMSON DERWENT
TI **Yeast** which ferments xylose to ethanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites.
AN 1997-558974 [51] WPIDS
AB WO 9742307 A UPAB: 19991020
Novel **yeast** which ferments xylose to ethanol, comprises: (a) xylose reductase (XR), xylitol dehydrogenase (XD) and xylulokinase (XK) genes integrated at each of its multiple **reiterated ribosomal DNA** sites; (b) multiple copies of exogenous DNA, including XR, XD, and XK genes, fused to non-glucose inhibited promoters integrated into its chromosomal DNA, where the **yeast** simultaneously ferments glucose and xylose to ethanol; or (c) multiple copies of an introduced DNA containing XR, XD and XK genes, where the **yeast** ferments xylose to ethanol, where the yeasts of (b) and (c) retain their capacity for fermenting xylose to ethanol when cultured under non-selective conditions for at least 20 generations.
USE - The methods can produce **yeast**, which even upon culture in non-selective medium for multiple generations, e.g. up to 20, retain their full capability to ferment xylose to ethanol.
Dwg.0/12
ACCESSION NUMBER: 1997-558974 [51] WPIDS
DOC. NO. CPI: C1997-178545
TITLE: **Yeast** which ferments xylose to ethanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites.
DERWENT CLASS: D16 D17 E17 H06
INVENTOR(S): CHEN, Z; HO, N W Y
PATENT ASSIGNEE(S): (PURD) PURDUE RES FOUND
COUNTRY COUNT: 76
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9742307	A1	19971113	(199751)*	EN	66
RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN YU					
AU 9728301	A	19971126	(199813)		
EP 898616	A1	19990303	(199913)	EN	
R: AT BE DE DK ES FI FR GB GR IE IT NL PT SE					
CN 1225125	A	19990804	(199949)		

JP 2000509988 W 20000808 (200043) 50
MX 9809223 A1 19990701 (200061)
AU 731102 B 20010322 (200122)
BR 9710963 A 20010731 (200146)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9742307	A1	WO 1997-US7663	19970506
AU 9728301	A	AU 1997-28301	19970506
EP 898616	A1	EP 1997-922698	19970506
		WO 1997-US7663	19970506
CN 1225125	A	CN 1997-196195	19970506
JP 2000509988	W	JP 1997-540153	19970506
		WO 1997-US7663	19970506
MX 9809223	A1	MX 1998-9223	19981105
AU 731102	B	AU 1997-28301	19970506
BR 9710963	A	BR 1997-10963	19970506
		WO 1997-US7663	19970506

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9728301	A	Based on	WO 9742307
EP 898616	A1	Based on	WO 9742307
JP 2000509988	W	Based on	WO 9742307
AU 731102	B	Previous Publ.	AU 9728301
		Based on	WO 9742307
BR 9710963	A	Based on	WO 9742307

PRIORITY APPLN. INFO: US 1996-16865P 19960506

L6 ANSWER 4 OF 13 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
TI Simple Mendelian inheritance of the **reiterated ribosomal DNA** of **yeast**.
ACCESSION NUMBER: 78243218 EMBASE
DOCUMENT NUMBER: 1978243218
TITLE: Simple Mendelian inheritance of the **reiterated ribosomal DNA** of **yeast**.
AUTHOR: Petes T.D.; Botstein D.
CORPORATE SOURCE: Dept. Biol., MIT, Cambridge, Mass. 02139, United States
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1977) 74/11 (5091-5095).
CODEN: PNASA6
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 022 Human Genetics
LANGUAGE: English

L6 ANSWER 5 OF 13 DGENE (C) 2003 THOMSON DERWENT
TI **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
AN AAV12824 DNA DGENE
AB This sequence represents an amplification primer for the **yeast** 5S rDNA sequence. The amplified sequence can be used in the **yeast** of the invention, which ferments xylose to ethanol. The **yeast** comprises: (a) xylose reductase (XR), xylitol dehydrogenase (XD) and xylulokinase (XK) genes integrated at each of its multiple **reiterated ribosomal DNA** sites; (b) multiple copies of exogenous DNA, including XR, XD, and XK genes, fused to

non-glucose inhibited promoters integrated into its chromosomal DNA, where the **yeast** simultaneously ferments glucose and xylose to ethanol; or (c) multiple copies of an introduced DNA containing XR, XD and XK genes, where the **yeast** ferments xylose to ethanol; the yeasts of (b) and (c) retain their capacity for fermenting xylose to ethanol when cultured under non-selective conditions for at least 20 generations. The **yeast** is produced by integrating multiple copies of exogenous DNA into **reiterated** chromosomal DNA of cells. The **yeast** produced by the integration method, even upon culture in non-selective medium for multiple generations (e.g. up to 20), retain their full capability to ferment xylose to ethanol.

ACCESSION NUMBER: AAV12824 DNA DGENE
TITLE: **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
INVENTOR: Chen Z; Ho N W Y
PATENT ASSIGNEE: (PURD) PURDUE RES FOUND.
PATENT INFO: WO 9742307 A1 19971113 66p
APPLICATION INFO: WO 1997-US7663 19970506
PRIORITY INFO: US 1996-16865 19960506
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 1997-558974 [51]

L6 ANSWER 6 OF 13 DGENE (C) 2003 THOMSON DERWENT
TI **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
AN AAV12829 DNA DGENE
AB This sequence is an amplification primer for the **yeast** Tn903 kanamycin resistance gene. The amplified sequence can be used in the **yeast** of the invention, which ferments xylose to ethanol. The **yeast** comprises: (a) xylose reductase (XR), xylitol dehydrogenase (XD) and xylulokinase (XK) genes integrated at each of its multiple **reiterated ribosomal DNA** sites; (b) multiple copies of exogenous DNA, including XR, XD, and XK genes, fused to non-glucose inhibited promoters integrated into its chromosomal DNA, where the **yeast** simultaneously ferments glucose and xylose to ethanol; or (c) multiple copies of an introduced DNA containing XR, XD and XK genes, where the **yeast** ferments xylose to ethanol; the yeasts of (b) and (c) retain their capacity for fermenting xylose to ethanol when cultured under non-selective conditions for at least 20 generations. The **yeast** is produced by integrating multiple copies of exogenous DNA into **reiterated** chromosomal DNA of cells. The **yeast** produced by the integration method, even upon culture in non-selective medium for multiple generations (e.g. up to 20), retain their full capability to ferment xylose to ethanol.
ACCESSION NUMBER: AAV12829 DNA DGENE
TITLE: **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
INVENTOR: Chen Z; Ho N W Y
PATENT ASSIGNEE: (PURD) PURDUE RES FOUND.
PATENT INFO: WO 9742307 A1 19971113 66p
APPLICATION INFO: WO 1997-US7663 19970506
PRIORITY INFO: US 1996-16865 19960506
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 1997-558974 [51]

L6 ANSWER 7 OF 13 DGENE (C) 2003 THOMSON DERWENT

TI **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites

AN AAV12828 DNA DGENE

AB This sequence is an amplification primer for the **yeast** Tn903 kanamycin resistance gene. The amplified sequence can be used in the **yeast** of the invention, which ferments xylose to ethanol. The **yeast** comprises: (a) xylose reductase (XR), xylitol dehydrogenase (XD) and xylulokinase (XK) genes integrated at each of its multiple **reiterated ribosomal DNA** sites; (b) multiple copies of exogenous DNA, including XR, XD, and XK genes, fused to non-glucose inhibited promoters integrated into its chromosomal DNA, where the **yeast** simultaneously ferments glucose and xylose to ethanol; or (c) multiple copies of an introduced DNA containing XR, XD and XK genes, where the **yeast** ferments xylose to ethanol; the yeasts of (b) and (c) retain their capacity for fermenting xylose to ethanol when cultured under non-selective conditions for at least 20 generations. The **yeast** is produced by integrating multiple copies of exogenous DNA into **reiterated** chromosomal DNA of cells. The **yeast** produced by the integration method, even upon culture in non-selective medium for multiple generations (e.g. up to 20), retain their full capability to ferment xylose to ethanol.

ACCESSION NUMBER: AAV12828 DNA DGENE

TITLE: **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites

INVENTOR: Chen Z; Ho N W Y

PATENT ASSIGNEE: (PURD) PURDUE RES FOUND.

PATENT INFO: WO 9742307 A1 19971113 66p

APPLICATION INFO: WO 1997-US7663 19970506

PRIORITY INFO: US 1996-16865 19960506

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: 1997-558974 [51]

L6 ANSWER 8 OF 13 DGENE (C) 2003 THOMSON DERWENT

TI **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites

AN AAV12827 DNA DGENE

AB This sequence is an amplification primer for the **yeast** Tn903 kanamycin resistance gene. The amplified sequence can be used in the **yeast** of the invention, which ferments xylose to ethanol. The **yeast** comprises: (a) xylose reductase (XR), xylitol dehydrogenase (XD) and xylulokinase (XK) genes integrated at each of its multiple **reiterated ribosomal DNA** sites; (b) multiple copies of exogenous DNA, including XR, XD, and XK genes, fused to non-glucose inhibited promoters integrated into its chromosomal DNA, where the **yeast** simultaneously ferments glucose and xylose to ethanol; or (c) multiple copies of an introduced DNA containing XR, XD and XK genes, where the **yeast** ferments xylose to ethanol; the yeasts of (b) and (c) retain their capacity for fermenting xylose to ethanol when cultured under non-selective conditions for at least 20 generations. The **yeast** is produced by integrating multiple copies of exogenous DNA into **reiterated** chromosomal DNA of cells. The **yeast** produced by the integration method, even upon culture in non-selective medium for multiple generations (e.g. up to 20), retain their full capability to ferment xylose to ethanol.

ACCESSION NUMBER: AAV12827 DNA DGENE

TITLE: **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and

xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
INVENTOR: Chen Z; Ho N W Y
PATENT ASSIGNEE: (PURD) PURDUE RES FOUND.
PATENT INFO: WO 9742307 A1 19971113 66p
APPLICATION INFO: WO 1997-US7663 19970506
PRIORITY INFO: US 1996-16865 19960506
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 1997-558974 [51]

L6 ANSWER 9 OF 13 DGENE (C) 2003 THOMSON DERWENT
TI **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
AN AAV12826 DNA DGENE
AB This sequence is an amplification primer for the **yeast** Tn903 kanamycin resistance gene. The amplified sequence can be used in the **yeast** of the invention, which ferments xylose to ethanol. The **yeast** comprises: (a) xylose reductase (XR), xylitol dehydrogenase (XD) and xylulokinase (XK) genes integrated at each of its multiple **reiterated ribosomal DNA** sites; (b) multiple copies of exogenous DNA, including XR, XD, and XK genes, fused to non-glucose inhibited promoters integrated into its chromosomal DNA, where the **yeast** simultaneously ferments glucose and xylose to ethanol; or (c) multiple copies of an introduced DNA containing XR, XD and XK genes, where the **yeast** ferments xylose to ethanol; the yeasts of (b) and (c) retain their capacity for fermenting xylose to ethanol when cultured under non-selective conditions for at least 20 generations. The **yeast** is produced by integrating multiple copies of exogenous DNA into **reiterated** chromosomal DNA of cells. The **yeast** produced by the integration method, even upon culture in non-selective medium for multiple generations (e.g. up to 20), retain their full capability to ferment xylose to ethanol.
ACCESSION NUMBER: AAV12826 DNA DGENE
TITLE: **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
INVENTOR: Chen Z; Ho N W Y
PATENT ASSIGNEE: (PURD) PURDUE RES FOUND.
PATENT INFO: WO 9742307 A1 19971113 66p
APPLICATION INFO: WO 1997-US7663 19970506
PRIORITY INFO: US 1996-16865 19960506
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 1997-558974 [51]

L6 ANSWER 10 OF 13 DGENE (C) 2003 THOMSON DERWENT
TI **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
AN AAV12825 DNA DGENE
AB This sequence represents an amplification primer for the **yeast** 5S rDNA sequence. The amplified sequence can be used in the **yeast** of the invention, which ferments xylose to ethanol. The **yeast** comprises: (a) xylose reductase (XR), xylitol dehydrogenase (XD) and xylulokinase (XK) genes integrated at each of its multiple **reiterated ribosomal DNA** sites; (b) multiple copies of exogenous DNA, including XR, XD, and XK genes, fused to non-glucose inhibited promoters integrated into its chromosomal DNA, where the **yeast** simultaneously ferments glucose and xylose to

ethanol; or (c) multiple copies of an introduced DNA containing XR, XD and XK genes, where the **yeast** ferments xylose to ethanol; the yeasts of (b) and (c) retain their capacity for fermenting xylose to ethanol when cultured under non-selective conditions for at least 20 generations. The **yeast** is produced by integrating multiple copies of exogenous DNA into **reiterated** chromosomal DNA of cells. The **yeast** produced by the integration method, even upon culture in non-selective medium for multiple generations (e.g. up to 20), retain their full capability to ferment xylose to ethanol.

ACCESSION NUMBER: AAV12825 DNA DGENE
TITLE: **Yeast** which ferments xylose to methanol - comprising xylitol reductase, xylitol dehydrogenase and xylulokinase genes integrated at each of its multiple **reiterated ribosomal DNA** sites
INVENTOR: Chen Z; Ho N W Y
PATENT ASSIGNEE: (PURD) PURDUE RES FOUND.
PATENT INFO: WO 9742307 A1 19971113 66p
APPLICATION INFO: WO 1997-US7663 19970506
PRIORITY INFO: US 1996-16865 19960506
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 1997-558974 [51]

L6 ANSWER 11 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI THE MAJOR PROMOTER ELEMENT OF RIBOSOMAL RNA TRANSCRIPTION IN **YEAST** LIES 2 KILOBASE PAIN UPSTREAM.
AB Conventional genetic analysis of the transcription of rDNA [**ribosomal DNA**] in **yeast** is precluded because the genes are highly **reiterated**. As an alternative strategy to determine which sequences modulate transcription of pre-rRNA, a series of artificial rRNA genes containing a fragment of DNA from Escherichia coli bacteriophage T7 were introduced into the **yeast** Saccharomyces cerevisiae. Correct transcription of the artificial genes was observed. Three regions of ribosomal spacer affected transcription of rRNA. Sequences within 210 bp [base pair] of the 5' terminus of 35S rRNA support low levels of transcription, but at multiple initiation points. Sequences from -210 to -2230 direct correct initiation and increase somewhat the efficiency of transcription. Most striking is that sequences from -2230 to -2420 stimulate transcription 15-fold. The function of this major promoter element is absolutely orientation-dependent but relatively independent of position. Its activity is blocked when an rRNA transcription termination sequence is placed between it and the site of initiation.

ACCESSION NUMBER: 1985:278527 BIOSIS
DOCUMENT NUMBER: BA79:58523
TITLE: THE MAJOR PROMOTER ELEMENT OF RIBOSOMAL RNA TRANSCRIPTION IN **YEAST** LIES 2 KILOBASE PAIN UPSTREAM.
AUTHOR(S): ELION E A; WARNER J R
CORPORATE SOURCE: DEP. BIOCHEM., ALBERT EINSTEIN COLL. MED., BRONX, N.Y. 10461.
SOURCE: CELL, (1984 (RECD 1985)) 39 (3 PART 2), 663-674. CODEN: CELLB5. ISSN: 0092-8674.
FILE SEGMENT: BA; OLD
LANGUAGE: English

L6 ANSWER 12 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI REPLICON SIZE OF **YEAST RIBOSOMAL DNA**.
AB The ribosomal RNA of the **yeast** Saccharomyces cerevisiae are transcribed from a 9kbp [kilobase pair] stretch of DNA which is **reiterated** .apprx. 120-fold in a continuous array, .apprx. 360 .mu.m long, on chromosome XII. Although ARS activity has been detected in the repeat unit, the size and disposition of replicons along this array of identical genes has not been determined. Immobilized rRNA was used as a probe to examine the size of radioactively labeled rDNA replicons resolved on alkaline sucrose gradients. The replicons were uniformly sized, .apprx.

5 repeat units in length, and groups of 4 adjacent replicons may be activated simultaneously. Replicon initiation events are not determined solely by the recognition of specific DNA sequences that function as origins of replication.

ACCESSION NUMBER: 1984:347097 BIOSIS
DOCUMENT NUMBER: BA78:83577
TITLE: REPLICON SIZE OF **YEAST RIBOSOMAL DNA**.
AUTHOR(S): WALMSLEY R M; JOHNSTON L H; WILLIAMSON D H; OLIVER S G
CORPORATE SOURCE: DEP. BIOCHEM. AND APPLIED MOLECULAR BIOL., UNIV. MANCHESTER INST. SCIENCE AND TECHNOL., P.O. BOX 88, MANCHESTER M60 1QD, U.K.
SOURCE: MOL GEN GENET, (1984) 195 (1-2), 260-266.
CODEN: MGGEAE. ISSN: 0026-8925.
FILE SEGMENT: BA; OLD
LANGUAGE: English

L6 ANSWER 13 OF 13 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI SIMPLE MENDELIAN INHERITANCE OF THE **REITERATED RIBOSOMAL DNA** OF **YEAST**.
AB A diploid strain of **yeast** (Saccharomyces cerevisiae) was heterozygous for 2 forms of the highly repetitious **ribosomal DNA**. These forms could be distinguished by the pattern of fragments produced after digestion with the site-specific restriction endonuclease EcoRI. The mode of inheritance of **ribosomal DNA** was determined by tetrad analysis. Of 14 tetrads analyzed, 12 clearly showed the **ribosomal DNA** forms segregating as a single Mendelian unit. The simplest interpretation of this result is that all of the approximately 100 copies of the **ribosomal DNA** genes of the **yeast** cell are located on 1 chromosome and that meiotic recombination within these genes is suppressed. Two of the 14 tetrads showed the segregation patterns expected as the result of mitotic recombination within the **ribosomal DNA**. [The DNA probe was prepared from an Escherichia coli strain].
ACCESSION NUMBER: 1978:158913 BIOSIS
DOCUMENT NUMBER: BA65:45913
TITLE: SIMPLE MENDELIAN INHERITANCE OF THE **REITERATED RIBOSOMAL DNA** OF **YEAST**.
AUTHOR(S): PETES T D; BOTSTEIN D
CORPORATE SOURCE: DEP. MICROBIOL., 920 E. 58TH ST., UNIV. CHIC., CHICAGO, ILL. 60637, USA.
SOURCE: PROC NATL ACAD SCI U S A, (1977) 74 (11), 5091-5095.
CODEN: PNASA6. ISSN: 0027-8424.
FILE SEGMENT: BA; OLD
LANGUAGE: English

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1653hxp

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4	Apr 09	ZDB will be removed from STN
NEWS 5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 9	Jun 03	New e-mail delivery for search results now available
NEWS 10	Jun 10	MEDLINE Reload
NEWS 11	Jun 10	PCTFULL has been reloaded
NEWS 12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS 13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS 14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS 15	Jul 30	NETFIRST to be removed from STN
NEWS 16	Aug 08	CANCERLIT reload
NEWS 17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18	Aug 08	NTIS has been reloaded and enhanced
NEWS 19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 23	Sep 03	JAPIO has been reloaded and enhanced
NEWS 24	Sep 16	Experimental properties added to the REGISTRY file
NEWS 25	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 26	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 27	Oct 21	EVENTLINE has been reloaded
NEWS 28	Oct 24	BEILSTEIN adds new search fields
NEWS 29	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS 31	Nov 18	DKILIT has been renamed APOLLIT
NEWS 32	Nov 25	More calculated properties added to REGISTRY
NEWS 33	Dec 02	TIBKAT will be removed from STN
NEWS 34	Dec 04	CSA files on STN
NEWS 35	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36	Dec 17	TOXCENTER enhanced with additional content
NEWS 37	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 38	Dec 30	ISMEC no longer available
NEWS 39	Jan 13	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 40	Jan 21	NUTRACEUT offering one free connect hour in February 2003
NEWS 41	Jan 21	PHARMAML offering one free connect hour in February 2003
NEWS 42	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 43	Feb 13	CANCERLIT is no longer being updated
NEWS 44	Feb 24	METADEX enhancements
NEWS 45	Feb 24	PCTGEN now available on STN

```
 NEWS 46  Feb 24  TEMA now available on STN
 NEWS 47  Feb 26  NTIS now allows simultaneous left and right truncation
 NEWS 48  Feb 26  PCTFULL now contains images
 NEWS 49  Mar 04  SDI PACKAGE for monthly delivery of multifile SDI results

 NEWS EXPRESS  January 6 CURRENT WINDOWS VERSION IS V6.01a,
               CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *



FILE 'HOME' ENTERED AT 10:13:04 ON 14 MAR 2003

=> file medline, uspatful, dgene, embase, biobusiness, wpids, japio, fsta, jicst
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   0.42       0.42

FILE 'MEDLINE' ENTERED AT 10:13:54 ON 14 MAR 2003

FILE 'USPATFULL' ENTERED AT 10:13:54 ON 14 MAR 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'DGENE' ENTERED AT 10:13:54 ON 14 MAR 2003
COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'EMBASE' ENTERED AT 10:13:54 ON 14 MAR 2003
COPYRIGHT (C) 2003 Elsevier Science B.V.  All rights reserved.

FILE 'BIOBUSINESS' ENTERED AT 10:13:54 ON 14 MAR 2003
COPYRIGHT (C) 2003 Biological Abstracts, Inc. (BIOSIS)

FILE 'WPIDS' ENTERED AT 10:13:54 ON 14 MAR 2003
COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'JAPIO' ENTERED AT 10:13:54 ON 14 MAR 2003
COPYRIGHT (C) 2003 Japanese Patent Office (JPO)- JAPIO

FILE 'FSTA' ENTERED AT 10:13:54 ON 14 MAR 2003
COPYRIGHT (C) 2003 International Food Information Service

FILE 'JICST-EPLUS' ENTERED AT 10:13:54 ON 14 MAR 2003
COPYRIGHT (C) 2003 Japan Science and Technology Corporation (JST)

=> s yeast and fermentation
L1       40441 YEAST AND FERMENTATION
```

```
=> s l1 and xylose
L2        4099 L1 AND XYLOSE

=> s l2 and integrate yeast chromosome
L3           0 L2 AND INTEGRATE YEAST CHROMOSOME

=> s integrate yeast chromosome
L4           1 INTEGRATE YEAST CHROMOSOME

=> d l4 ti abs ibib tot

L4   ANSWER 1 OF 1  WPIDS (C) 2003 THOMSON DERWENT
TI   Yeast derived vector contg. gene for antibiotic resistance - controlled by
     yeast or synthetic promoter, able to integrate with yeast chromosome.
AN   1985-304934 [49]   WPIDS
CR   1986-332093 [50]; 1996-189959 [20]
AB   EP    163491 A UPAB: 19960529
     Vector includes a gene for resistance to an antibiotic normally able to
     kill a host yeast cell, and the gene is transcribed from a yeast or
     synthetic promotor sequence.  The vector can be integrated into a
     chromosome of the yeast host.
          The vector may also contain (1) a gene heterologous to the host and
     (2) a homologous sequence of the chromosome, inserted in such a way that
     no interference with host metabolism occurs.
          USE/ADVANTAGE - Yeast cells transformed with the vectors express e.g.
     glucoamylase (able to convert starch to glucose which is the converted to
     CO2 or EtOH, for use in dough making or brewing).  Those expressing malate
     permease are useful in wine making because they can eliminate malic acid.
     The heterologous gene can also express a therapeutically useful protein,
     e.g. interferon.  These vectors are stable over many generations even in
     the absence of selection.
     Dwg.0/4
     Dwg.0/4
ABEQ EP    163491 B UPAB: 19960428
     A yeast cell transformed by integration into a chromosome thereof of
     vector DNA; characterised in that the host yeast cell is an industrial
     non-haploid yeast cell; in that the vector DNA comprises a gene for
     resistance to an antibiotic otherwise capable of killing said yeast cell,
     said gene being transcribed from a promoter sequence which is capable of
     promoting the expression of said antibiotic resistance gene at a level
     which confers antibiotic resistance to said cell; in that said vector DNA
     comprises a sequence homologous with a sequence of said chromosome and is
     integrated therein; and in that said vector DNA further comprises a gene
     for a desired heterologous protein.
     Dwg.0/4
ACCESSION NUMBER:      1985-304934 [49]   WPIDS
CROSS REFERENCE:       1986-332093 [50]; 1996-189959 [20]
DOC. NO. CPI:          C1985-131759
TITLE:                 Yeast derived vector contg. gene for antibiotic
                       resistance - controlled by yeast or synthetic promoter,
                       able to integrate with yeast chromosome.
DERWENT CLASS:         B04 D16
INVENTOR(S):           YOCUM, R R
PATENT ASSIGNEE(S):    (YOCU-I) YOCUM R R; (OMNI-N) OMNIGENE INC; (BIOY)
                       BIOTECHNICA INT INC
COUNTRY COUNT:         7
PATENT INFORMATION:

     PATENT NO   KIND DATE     WEEK      LA   PG
     ---------------------------------------------
     EP 163491     A  19851204 (198549)* EN   27
     AU 8542709    A  19851128 (198604)
     BR 8502400    A  19860121 (198610)
     FI 8502024    A  19851123 (198611)
```

JP 61040793	A	19860227 (198615)		
DK 8502241	A	19851123 (198617)		
EP 163491	B1	19960327 (199617)	EN	20
DE 3588096	G	19960502 (199623)		
CA 1338857	C	19970121 (199715)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 163491	B1	EP 1985-303625	19850522
DE 3588096	G	DE 1985-3588096	19850522
		EP 1985-303625	19850522
CA 1338857	C	CA 1985-481908	19850521

FILING DETAILS:

PATENT NO	KIND		PATENT NO
DE 3588096	G	Based on	EP 163491

PRIORITY APPLN. INFO: US 1984-612796 19840522